PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Essex Group, Inc.
Magnet Wire Manufacturing
3200 Essex Drive
Franklin, Indiana 46131

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 081-7977-00021	
Issued by: Original Signed by Janet McCabe Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: August 12, 2002 Expiration Date: August 12, 2007

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a magnet wire manufacturing operation.

Responsible Official:	Plant Manager
Source Address:	3200 Essex Drive, Franklin, Indiana 46131
Mailing Address:	3200 Essex Drive, Franklin, Indiana 46131
Phone Number:	317-738-4365
SIC Code:	3357
County Location:	Johnson
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source under PSD Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Eight (8) HM wire enameling process lines constructed in 1993, emission unit numbers 203, 204, 205, 206, 253, 254, 255, and 256 with a maximum rating of 475 pounds of magnet wire per hour each. Each process line consists of an annealer, enamel applicators, curing oven, wire cooler and topical lube applicator. Emissions shall be controlled by integral internal catalytic oxidizers, internal to each curing oven, then exhausted to stacks SO203, SO204, SO205, SO206, SO253, SO254, SO255, and SO256, respectively.

(b) Four (4) MI wire enameling process lines constructed in 1993, emission units 201, 202, 251, and 252 with a maximum rating of 466 pounds of magnet wire per hour each. Each process line consists of an annealer, enamel applicators, curing oven, wire cooler and topical lube applicator. Emissions shall be controlled by integral internal catalytic oxidizers, internal to each curing oven, then exhausted to stacks SO201, SO202, SO251, and SO252, respectively.

(c) One (1) cleaning area (CLRM1), consisting of tanks 1 through 3, exhausted through stacks SCT1, SCT2, and SCT3, capacity: 600 gallons each.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].

(b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70-Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act

(c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the

shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper

maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(7)]

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy any records that must be kept under the conditions of this permit;

(c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit VOC is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.12 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) Whenever a condition in this permit requires the measurement of a temperature, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) The Permittee may request the IDEM, OAQ to approve the use of another instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within “normal” parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.19 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(a) Eight (8) HM wire enameling process lines constructed in 1993, emission unit numbers 203, 204, 205, 206, 253, 254, 255, and 256 with a maximum rating of 475 pounds of magnet wire per hour each. Each process line consists of an annealer, enamel applicators, curing oven, wire cooler and topical lube applicator. Emissions shall be controlled by integral internal catalytic oxidizers, internal to each curing oven, then exhausted to stack. SO203, SO204, SO205, SO206, SO253, SO254, SO255, and SO256, respectively.

(b) Four (4) MI wire enameling process lines constructed in 1993, emission units 201, 202, 251, and 252 with a maximum rating of 466 pounds of magnet wire per hour each. Each process line consists of an annealer, enamel applicators, curing oven, wire cooler and topical lube applicator. Emissions shall be controlled by integral internal catalytic oxidizers, internal to each curing oven, then exhausted to stack. SO201, SO202, SO251, and SO252, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-2-8]

(a) Pursuant to 326 IAC 8-2-8 (Magnet Wire Coating Operations) and CP 081-2345-00021 issued on March 31, 1992, the owner or operator shall not allow the discharge into the atmosphere of VOC in excess of 1.7 pounds VOC per gallon of coating, excluding water, delivered to the coating applicator from magnet wire coating operations.

(b) Pursuant to 326 IAC 8-1-2 (b), the enameling process lines VOC emission shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon coating solids, allowed in (a).

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating
D= Density of VOC in coating in pounds per gallon of VOC
E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied

Actual solvent density shall be used to determine compliance of surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).

(c) The pounds of VOC per gallon of coating solids shall be limited to less than 2.21, when L is equal to 1.7 pounds of VOC per gallon of coating and D is equal to 7.36 pounds of VOC per gallon of coating.

(d) Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the catalytic oxidizer shall be no less that the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

O = Equivalent overall efficiency of the capture system and control device as a percentage.

The overall efficiency of the catalytic oxidizer shall be greater than 94.9%.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the catalytic oxidizers to achieve compliance with condition D.1.1 at all times the magnetic wire coaters are in operation.

D.1.4 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

(a) Within six (6) months after issuance of this permit, the Permittee shall conduct a performance test to verify VOC control efficiency as per D.1.1 for catalytic oxidizers using methods as approved by the Commissioner. Testing shall also be conducted every twenty-four (24) months after this first test.

(b) The oven tested shall be the oven with the oldest primary catalyst life that has not been tested since the issuance of this permit. Oldest catalyst refers to the longest serving catalyst since last activation.

(c) Within eighteen (18) months of issuance of this permit and at least every twenty-four (24) months thereafter, the permittee shall remove the primary catalyst from each oven and have the catalyst vendor conduct a catalyst activity analysis. Catalysts with percent activity less than the catalyst activity of the oldest catalyst must be replaced or a stack test must be conducted to show that 94.9% overall efficiency is being achieved.

(d) Before using a coating with a higher VOC content than what was used during the stack test required in (a) above, the Permittee shall conduct a performance test to verify VOC control efficiency as per D.1.1 for catalytic oxidizers using methods as approved by the Commissioner.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Catalytic Oxidizer

(a) From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature of 500 ^{0}C.

(b) The Permittee shall determine temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.1.1, as approved by IDEM.

(c) From the date of the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature as observed during the compliant stack test.

D.1.6 Parametric Monitoring

A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be at or above the hourly average temperature used to demonstrate compliance during the most recent compliance stack test.

D.1.7 Catalyst Replacement Inspections

The primary catalyst on each oven shall be inspected once per year. If there are indications of excess fouling or excess catalyst degradation, the permittee must test catalyst activity or replace the catalyst.

D.1.8 Visible Emissions Notations

(a) Twice in a week, visible emission notations of the ovens stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Record Keeping and Reporting [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records of manufacturer's data, including but not limited to material safety data sheets (MSDS) to verify the VOC content of each coating material and solvent used.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records of the continuous temperature records.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain a log of primary catalyst inspections, the inspection results, and replacement dates of the catalyst.

(d) To document compliance with Condition D.1.8, the permittee shall maintain records of visual emissions notations.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(c) One (1) cleaning area (CLRM1), consisting of tanks 1 through 3, exhausted through stacks SCT1, SCT2, and SCT3, capacity: 600 gallons each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1,1980, the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.2.2 Volatile Organic Compounds (VOC)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of the cleaning tanks, construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius ($38^{O}C$) (one hundred degrees Fahrenheit ($100^{O}F$)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120^{O}F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Specifically Regulated Insignificant Activities

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter (PM) from brazing, cutting, soldering and welding operations shall be limited by the following:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.2 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.3 Volatile Organic Compounds (VOC)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility, construction of which commenced after July 1, 1990, shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch)

measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38^{O}C) (one hundred degrees Fahrenheit (100^{O}F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9^{O}C) (one hundred twenty degrees Fahrenheit (120^{O}F)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Essex Group, Inc.
Source Address: 3200 Essex Drive, Franklin, Indiana 46131
Mailing Address: 3200 Essex Drive, Franklin, Indiana 46131
Part 70 Permit No.: T081-7977-00021

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

AIR COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Essex Group, Inc.
Source Address: 3200 Essex Drive, Franklin, Indiana 46131
Mailing Address: 3200 Essex Drive, Franklin, Indiana 46131
Part 70 Permit No.: T081-7977-00021

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- C The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- C The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Essex Group, Inc.
Source Address: 3200 Essex Drive, Franklin, Indiana 46131
Mailing Address: 3200 Essex Drive, Franklin, Indiana 46131
Part 70 Permit No.: T081-7977-00021

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: ______________________________

Title/Position: ______________________________

Date: ______________________________

Phone: ______________________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Background and Description

Source Name:	Essex Group, Inc., Magnet Wire Manufacturing
Source Location:	3200 Essex Drive, Franklin, Indiana 46131
County:	Johnson
SIC Code:	3357
Operation Permit No.:	T081-7977-00021
Permit Reviewer:	ERG/MT

On February 12, 2001, the Office of Air Quality (OAQ) had a notice published in the Daily Journal, Franklin, Indiana, stating that Essex Group, Inc., Franklin had applied for a operating permit to operate a magnet wire operation. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Responses to EPA Comments

On March 6, 2001, the EPA submitted comments on the proposed Part 70 permit. The following is a summary of the comments.

Comment 1:

The TSD indicates that cleaning solvent usage was limited to 4100 gallons per year in a previous construction permit to maintain minor source status for PSD purposes. This permit now proposes to increase this limit to 8000 gallons per year, which will keep the source below 250 tpy of VOC. Is there a particular condition that incorporates this increase, but perhaps uses different units or time frames?

Response to Comment 1:

The 8000 gallons per year limit was converted to a VOC limit of 34.3 tons per twelve (12) consecutive months. The draft permit has this VOC limit in condition D.2.1.

Comment 2:

The permit contains a 4100 gallon per year limit, but is not clear on the basis of this limit. If this is a PSD limit, then increasing the limit to 8000 gallons per year will push them above the PSD threshold. It is also possible that the provisions of 40 CFR 52.21(r)(4) are being triggered which say that past limits taken to avoid PSD can't be relaxed at a later time without triggering PSD.

Response to Comment 2:

The construction permit from which the 4100 gallon per year limit came from was not clear why this limit was imposed. Based on the calculations in the Technical Support Document (TSD), it was assumed that limiting the use of lubricants and solvent use was necessary to limit potential to emit under Prevention of Significant Deterioration (PSD). Increasing the construction permit limit from 4100 to 8000 gallons per year did not increase potential to emit beyond minor source status.

However, Superior Essex has pointed out that the calculations in the TSD were incorrect, causing the emissions to be overstated. They have also called attention to the fact that the earlier construction permit was for 30 ovens, but only 12 ovens were constructed. See the response (Response #3) to the Superior Essex comments for more information regarding the conditions necessary to limit potential to emit.

Responses to Superior Essex' Comments

On March 12, 2001 and July 18, 2001, Superior Essex submitted comments on the proposed Part 70 permit. Superior Essex also requested the addition of a new coating on April 9, 2001. The following is a summary of the comments. In the responses, additions to the permit are bolded for emphasis; the language with a line through it has been deleted. The Table of Contents has been modified to reflect these changes.

Comment 1: Potential to Emit

The Title V application for Essex-Johnson County listed five enamels on magnet wire oven forms PI-19. Two were basecoats (THEIC), and three were topcoats (amide-imid). The resulting PTE calculations in Appendix A of the public notice draft Title V air permit summed the PTE for all five enamels rather than summing the PTE for the highest individual basecoat plus the highest individual topcoat. This misunderstanding overstated the PTE for the Essex-Johnson County magnet wire ovens by a factor of about 2.5.

Response to Comment 1:

IDEM has revised the calculations to correctly calculate the total PTE from each oven by summing the PTE's of the worst case basecoat and the worst case topcoat. The revised calculations are shown on pages 1 through 4 of the Appendix to this Addendum.

Comment 2: VOC Control Efficiency

The required VOC control efficiency to maintain compliance with Indiana magnet wire coating regs (326 IAC 8-2-8) was calculated during construction permitting to be 94.0% for Essex-Johnson County. During our telephone conversation of Tuesday, December 19, 2000, Essex suggested that this target be increased to a level that avoided PSD-major status. Now that PTE for Essex-Johnson County is demonstrated to be solidly PSD-minor, Essex requests that minimum VOC control efficiency be returned to 94.0% for Essex-Johnson County.

Superior Essex also provided data on a new basecoat to be included in the Title V permit on April 9, 2001. This coating is a new worst-case coating which will require an increase in the required control efficiency above the 94% determined in the past construction permit.

Response to Comment 2:

The new required control efficiency for the new coating was calculated to be 94.9%. These calculations are shown on page 5 of the Appendix to this Addendum. Also, after making the correction to the calculations as described in Comment 1, the potential emissions of VOC are well below the PSD-major thresholds. Therefore, the higher efficiency of 96.1% is not required. IDEM has revised the calculations to incorporate the newly required 94.9% control efficiency. The revised calculations are shown on pages 1 through 4 of the Appendix to this Addendum. Note that emissions from the use of lubricant oil and clean up solvents are included in these calculations. For emissions from the cleaning area, see the Appendix to the original Technical Support Document. The required control efficiency was changed in the permit as follows (Other changes are also shown that are a result of comments not yet discussed.):

D.1.~~7~~**4** Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

(a) Within ~~twenty-four (24)~~ **six (6)** months after issuance of this permit, the Permittee shall **conduct performance test to verify VOC control efficiency as per D.1.1 for thermal oxidizers using Method 25 (40 CFR 60, Appendix A) or other Method** ~~perform VOC testing utilizing methods~~ as approved by the Commissioner. **Testing shall also be conducted every twenty-four (24) months after this first test.**

(b) ~~One representative oven from the twelve (12) magnet wire ovens shall be tested.~~ The oven tested shall ~~not~~ be **the oven with the oldest primary catalyst life that has not been tested since the issuance of this permit.** ~~an oven that has previously been tested. The catalyst of the oven chosen to be tested shall be on its second year of life. The test shall be done within the last 2 months of this second year of life of the catalyst.~~ **Oldest catalyst refers to the longest serving catalyst since last activation.**

(c) Within eighteen (18) months of issuance of this permit and at least every twenty-four (24) months thereafter, the permittee shall remove the primary catalyst from each oven and have the catalyst vendor conduct a catalyst activity analysis. Catalysts with percent activity less than the catalyst activity of the oldest catalyst must be replaced or a stack test must be conducted to show that 94.9% overall efficiency is being achieved.

(d)~~(c)~~ ~~Additionally, if~~ **Before using a coating with** a higher VOC content **than what was used during the stack test required in (a) above,** ~~coating is used or if the temperature falls below the 689EF required minimum temperature it will be considered a violation unless~~ the Permittee ~~performs~~ **shall conduct a performance test to verify** VOC ~~testing utilizing~~ **control efficiency as per D.1.1 for catalytic oxidizers using Method 25 (40 CFR 60, Appendix A) or other M**~~m~~ethod~~s~~ as approved by the Commissioner. ~~to ensure compliance with the 96.9% overall efficiency at the lower temperature.~~

Comment 3: Recordkeeping Requirements.

Essex-Johnson County's original construction air permit involved the installation of 30 magnet wire ovens. Potential-to-emit (PTE) for 30 ovens plus associated operations at Essex-Johnson County would approach Prevention of Significant Deterioration (PSD) levels. And thus, elaborate record keeping on raw material consumption was developed for Essex-Johnson County. However, it's critical to realize that only 12 ovens were ever installed at Essex-Johnson County, and so true PTE for Essex-Johnson County has always been far less than PSD-major.

Based on the fact that only 12 ovens were installed and the revisions to the potential VOC emissions calculation described in comments 1 and 2, the PTE for Essex-Johnson County is demonstrated to be solidly PSD-minor. Essex suggests that it would be appropriate that compliance record keeping at Essex-Johnson County be returned to a philosophy in place at other magnet wire plants in Indiana: tracking oven burner temperatures to demonstrate assured VOC destruction, in compliance with Indiana magnet wire coating regs (326 IAC 8-2-8), without elaborate recordkeeping on raw material consumption.

Response to Comment 3:

The use limits that were included in the draft permit (48 gallons of lubricant per day and 8000 gallons of solvent per year both converted to a VOC limit) were considered important in order to maintain the PSD minor status. However, with the changes in the calculations of VOC emissions from the ovens, the source is well within the PSD minor source thresholds. IDEM does not consider the lubricant or solvent usage limits necessary to maintain the PSD minor status.

The use of lubricants are constrained by the process. Lubricants are only used if magnet wire is being produced, if more wire is produced then more lubricant is used and if less wire is produced then less lubricant is used. The 48 gallons of lubricant per day in the construction permit (CP 081-2345-00021)

was the maximum level that the source determined could be used by the 30 ovens. Now that only 12 ovens have been installed and lubricant usage is constrained by the process, IDEM does not consider the limit for the lubricant necessary to maintain PSD minor status.

The cleaning area is used to clean equipment parts from the ovens when a coating is being changed or if there is some malfunction in the line. For a given oven, the equipment may be cleaned every week or once in several days. The 4100 gallons of solvent limit in the construction permit was based on what a similar plant used and represented the maximum usage for a facility with 30 ovens. Because the emissions from the solvent use is relatively small, about 17.6 tons per year for the 4100 gallons, the use would have to increase by more than 4 times in order for the source to be major for PSD. Since the original limit was based on 30 ovens and only 12 ovens were installed and the use of the cleaning area would have to increase far beyond possibility, IDEM does not consider the limit for the solvent cleaning area to be necessary in maintaining PSD minor source status.

IDEM does not consider removing these limits that were originally in the previous construction permit (48 gallons per day of lubricant and 4100 gallons per year of solvent in the solvent cleaning area) a violation of 40 CFR 52.21(r)(4). The construction permit did not specify that these limits were necessary to make Essex a synthetic minor source under PSD. Even if these limits were for that purpose, only 12 of the 30 ovens were actually installed which makes limits on raw material usage unnecessary.

IDEM has removed the limit on both lubricant usage and solvent use in the cleaning area (Conditions D.1.2 and D.2.1). All record keeping and reporting requirements associated with these limits were also deleted. In order to make it clear that any increase in raw material usage or change in raw materials that would increase emissions above 250 tons per year would need approval from IDEM, OAQ before the change, IDEM has left this provision in C.1. This condition has been modified to specify that the source is currently under 250 tons per year. This change, as well as those changes in Section D.1 and D.2 that incorporate the removal of the limits, are shown below. Forms associated with these limits have also been removed from the permit and conditions were renumbered as appropriate. (Other changes are shown below that are a result of comments not yet discussed.)

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit VOC is ~~limited to~~ less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.

~~D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]~~

~~The enamel processing lines shall emit less than 67.3 tons of VOC per 12 consecutive month period from lubricant usage. Also, the ovens shall emit less than 146.4 tons per year of VOC per 12 consecutive month period. These limits, in conjunction with the limit in Condition D.2.1, are required to limit the potential to emit of VOC for the entire source to less than 250 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.~~

~~D.1.5 Volatile Organic Compound (VOC)~~

~~Compliance with the VOC usage limitations contained in Condition D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.~~

~~D.1.6 VOC Emissions~~

~~Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound for the twelve (12) month period.~~

D.1.~~10~~**9** Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records of **manufacturer's data, including but not limited to** material safety data sheets (MSDS) to verify the VOC content of each coating material and solvent used.

~~(b) To document compliance with Conditions D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.2.~~

~~(1) The amount and VOC content of each lubricant used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

~~(2) A log of the dates of use;~~

~~(3) The total VOC usage for each month; and~~

~~(4) The weight of VOCs emitted for each compliance period.~~

(~~c~~**b**) To document compliance with Condition D.1.~~8~~**6**, the Permittee shall maintain records of the **continuous temperature records**. ~~computer collected data~~.

(~~d~~**c**) To document compliance with Condition D.1.~~9~~**7**, the Permittee shall maintain a log of ~~the~~ ~~replacement dates of the catalyst.~~ **primary catalyst inspections, the inspection results, and replacement dates of the catalyst**.

(d) To document compliance with Condition D.1.8, the permittee shall maintain records of visual emissions notations.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

~~D.1.11 Reporting Requirements~~

~~A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

~~D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]~~

~~The cleaning area shall emit less than 34.3 tons of VOC per twelve consecutive month period from cleaning solvent usage. This usage limit, in conjunction with the limit in Condition D.1.2, is required to limit the potential to emit of VOC for the entire source to less than 250 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.~~

~~**Compliance Determination Requirements**~~

~~D.2.4 Volatile Organic Compounds (VOC)~~

~~Compliance with the VOC content and usage limitations contained in Conditions D.2.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.~~

~~D.2.5 VOC Emissions~~

~~Compliance with Condition D.2.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound for the twelve (12) month period.~~

~~Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]~~

~~D.2.6 Record Keeping Requirements~~

~~(a) To document compliance with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1:~~

~~(1) The amount and VOC content of each solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

~~(2) A log of the dates of use;~~

~~(3) The volume of solvent used for each month; and~~

~~(4) The volume of solvent disposed for each month;~~

~~(5) The weight of VOCs emitted for each compliance period.~~

~~(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~

~~D.2.7 Reporting Requirements~~

~~A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Essex Group, Inc.
Source Address: 3200 Essex Drive, Franklin, Indiana 46131
Mailing Address: 3200 Essex Drive, Franklin, Indiana 46131
Part 70 Permit No.: T081-7977-00021
Facility: Cleaning Tanks
Parameter: Solvent usage
Limit: 8,000 gallons per year

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

(Provide 3 of these forms for each quarter)

Source Name: Essex Group, Inc.
Source Address: 3200 Essex Drive, Franklin, Indiana 46131
Mailing Address: 3200 Essex Drive, Franklin, Indiana 46131
Part 70 Permit No.: T081-7977-00021
Facility: Wire lubrication
Parameter: Lubricant usage
Limit: 48 gallons per day

Month: _____ **Year:** _____

Day				Day			
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16				no. of deviations			

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Essex Group, Inc.
Source Address: 3200 Essex Drive, Franklin, Indiana 46131
Mailing Address: 3200 Essex Drive, Franklin, Indiana 46131
Part 70 Permit No.: T081-7977-00021
Facility: Magnet wire ovens
Parameter: VOC emissions
Limit: 146.4 tons per year

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Comment 4: Cleaning Solvent Use

A provision in the original construction air permit for Essex-Johnson County limited cleaning solvent use. Essex took this limitation to mean loss of cleaning solvents to atmosphere; however, IDEM considered this to also include spent solvents shipped off-site as waste. Essex' adoption of IDEM's definition made it necessary for Essex to ask for an increase in allowable cleaning solvent use. However, solvent loss to atmosphere is far less than overall use, as defined by IDEM. Thus, the Appendix A emission calculations for the Essex-Johnson County cleaning room are overstated. This has no real impact on compliance status at Essex-Johnson County, but it does again demonstrate that the true PTE for Essex-Johnson County is far less than PSD-major.

Response to Comment 4:

IDEM has determined that this limit is not necessary, see response to comment 2.

Comment 5: Catalyst replacement

The public notice draft Title V air permit mandates that magnet wire oven catalyst at Essex-Johnson County be replaced a minimum of every 24 months. This schedule is believed to be based on agreements reached during Title V permitting with other Indiana magnet wire manufacturers. However, Essex-Johnson County has stack test data indicating that its magnet wire ovens maintain compliant VOC destruction efficiency after periods of use as long as seven years. Essex requests an opportunity to negotiate with IDEM on this catalyst change-out schedule, especially at its implementation. Essex also requested that the permit clarify that the catalyst that the provisions pertain to is the primary catalyst.

Response to Comment 5:

After further discussion with Essex-Johnson County on the issues associated with catalyst replacement, OAQ has determined that Essex does not need to replace all of their primary catalysts every twenty-four months. However, in order to ensure that the catalytic oxidizers are operating effectively OAQ has included additional monitoring requirements. The testing requirement was modified to require testing within 6 months of permit issuance and that the oven with the oldest catalyst be tested first. Stack testing on the oven with the oldest catalyst life that has not been tested before must be conducted every twenty-four months after the initial test. Catalyst activity for each oven must be analyzed every twenty-four months. The resulting catalyst activity must be compared to the activity of the oldest catalyst that can achieve the required 94.9% overall efficiency as a measure of its effectiveness. If the catalyst activity indicates that the oxidizer may not be operating adequately, a stack test must be conducted or the catalyst replaced. Primary catalyst of each oven must be inspected for fouling or excess degradation once per year. If the catalyst appears to be overly fouled or degraded the source must conduct a catalyst activity test or replace the catalyst. Visual emission notations are required twice per week on each oven stack.

Further discussion with Essex on this issue resulted in Essex requesting that the annual catalyst inspection requirement be removed. They stated that these inspections are of little value in comparison to the catalyst activity monitoring. OAQ considers these inspections important in ensuring continuous compliance if a scheduled replacement of the catalyst will not be done. Also, Essex made the suggestion of catalyst inspections at a meeting with OAQ indicating that these inspections would not be difficult or burdensome. Annual catalyst inspections remain in the permit.

Essex also requested in a later communication (July 18, 2001 letter) that the term “oldest” in regards to catalyst life should be clarified to mean the longest-serving catalyst since last activation. OAQ has made this clarification in the permit language of D.1.5(b), see changes below.

In the letter of July 18, 2001, Essex agreed to performing the stack test and the catalyst activity analysis within 6 months of permit issuance. However, they requested that 18 months be given to perform the

initial catalyst activity tests on the other catalyst. OAQ has given 18 months from permit issuance for the catalyst activity analysis for the other catalysts.

The required temperature for the catalytic oxidizers was changed from 689EF to 500EC. After discussions with Essex - Johnson County it was determined that 500EC was a more appropriate temperature for these ovens. Essex has stated that this temperature will achieve the required 94.9% overall efficiency. The following changes to the permit were made:

D.1.~~7~~**4** Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

(a) Within ~~twenty-four (24)~~ **six (6)** months after issuance of this permit, the Permittee shall **conduct performance test to verify VOC control efficiency as per D.1.1 for catalytic oxidizers using** ~~perform VOC testing utilizing~~ methods as approved by the Commissioner. **Testing shall also be conducted every twenty-four (24) months after this first test.**

(b) ~~One representative oven from the twelve (12) magnet wire ovens shall be tested.~~ The oven tested shall ~~not~~ be **the oven with the oldest primary catalyst life that has not been tested since the issuance of this permit.** ~~an oven that has previously been tested. The catalyst of the oven chosen to be tested shall be on its second year of life. The test shall be done within the last 2 months of this second year of life of the catalyst.~~ **Oldest catalyst refers to the longest serving catalyst since last activation.**

(c) Within eighteen (18) months of issuance of this permit and at least every twenty-four (24) months thereafter, the permittee shall remove the primary catalyst from each oven and have the catalyst vendor conduct a catalyst activity analysis. Catalysts with percent activity less than the catalyst activity of the oldest catalyst must be replaced or a stack test must be conducted to show that 94.9% overall efficiency is being achieved.

(d)~~(c)~~ ~~Additionally, if~~ **Before using a coating with** a higher VOC content **than what was used during the stack test required in (a) above,** ~~coating is used or if the temperature falls below the 689EF required minimum temperature it will be considered a violation unless~~ the Permittee ~~performs~~ **shall conduct a performance test to verify** VOC ~~testing utilizing~~ **control efficiency as per D.1.1 for catalytic oxidizers using** methods as approved by the Commissioner. ~~to ensure compliance with the 96.9% overall efficiency at the lower temperature.~~

D.1.5 Catalytic Oxidizer

(a) From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature of 500 ^{0}C.

(b) The Permittee shall determine temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.1.1, as approved by IDEM.

(c) From the date of the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature as observed during the compliant stack test.

D.1.6 Parametric Monitoring

A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be at or above the hourly average temperature used to demonstrate compliance during the most recent compliance stack test.

~~D.1.6 VOC Emissions~~

~~Compliance with condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound for the twelve (12) month period.~~

~~D.1.8 Monitoring~~

~~(a) Compliance with the 689EF minimum temperature will be monitored by computer collected data generated continuously and recorded on strip charts.~~

~~(b) If during specific hours when in production the temperature is less than the established minimum temperature, this will be considered noncompliance.~~

D.1.~~7~~9 Catalyst Replacement **Inspections**

~~The catalyst shall be replaced a minimum of every twenty-four (24) months provided that the catalyst oxidizer is achieving the required overall efficiency. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~ **The primary catalyst on each oven shall be inspected once per year. If there are indications of excess fouling or excess catalyst degradation, the permittee must test catalyst activity or replace the catalyst.**

D.1.8 Visible Emissions Notations

(a) Twice in a week, visible emission notations of the ovens stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Comment 6: Emergency Reduction Plan

Essex questions the applicability at Essex-Johnson County for 'boilerplate' permit provision C.15, Emergency Reduction Plans. It's our understanding that this is applicable only for non-attainment areas.

Response to Comment 6:

As specified in 326 IAC 1-5-2, Emergency Reduction Plans are applicable to all sources that have the potential to emit of 100 tons per year or more of any pollutant regardless of attainment status. Therefore, Condition C.15 is applicable to this source. No change was made as a result of this comment.

Comment 7: Section C.10

Superior Essex realizes that “boilerplate” nature of sections A through C, but the phrase “at any time” is an invitation to abuse. Is alternative wording available?

Response to Comment 7:

The language in Condition C.10 is language taken out of the rule, 326 IAC 2-1.1-11. Therefore, there is no alternative language and no change was made to the permit.

Comment 8: Section C.14

With regard to scale and accuracy of magnet wire oven temperatures that are to be tracked as required by the Title V permit, Essex-Johnson County plant uses thermocouples and associated electronics that are standard within the magnet wire industry.

Response to Comment 8:

The language in Condition C.14 does not exclude the use of thermocouples. No change was made to the permit.

Comment 9: Section C.21

The draft Title V currently requires quarterly routine compliance monitoring reports. Now that detailed record keeping for raw material input has been eliminated throughout the permit, after determination that VOC PTE is much less than the PSD major source level, there is no apparent reason that routine compliance monitoring reports should be any more frequent than semi-annual.

Response to Comment 9:

IDEM considers quarterly compliance monitoring reports necessary to ensure continuous compliance. No change was made to the permit.

Comment 10: Emission Calculations

Superior Essex has long held that VOC potential-to-emit for magnet wire ovens such as those in place at Essex-Johnson County plant should be calculated downstream of the control devices. Combustion of the enamel carrier solvents provides much of the heat for curing the final product, so Superior Essex has long held that these controls are”inherent” to the process, and thus PTE is in fact downstream of controls.

Response to Comment 10:

As shown in the descriptions to the oven in the calculation sheets to the TSD, and in the calculations in the appendix of this document, the catalytic oxidizers were considered integral to the process and emissions were calculated and considered after the effect of the catalytic oxidizers. No change was made to the permit.

Comment 11: Record Keeping Requirements

In their letter of July 18, 2001, Essex stated that formulation data for enamels, thinners, etc., will be from manufacturer’s data, including but not limited to MSDSs.

Response to Comment 11:

The permit was modified to indicate that other manufacturers information can be used to determine VOC content of coating materials and solvents in addition to MSDS, as requested by the source.

D.1.~~10~~**9** Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records of **manufacturer's data, including but not limited to** material safety data sheets (MSDS) to verify the VOC content of each coating material and solvent used.

~~(b) To document compliance with Conditions D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.2.~~

~~(1) The amount and VOC content of each lubricant used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

~~(2) A log of the dates of use;~~

~~(3) The total VOC usage for each month; and~~

~~(4) The weight of VOCs emitted for each compliance period.~~

(~~c~~**b**) To document compliance with Condition D.1.~~8~~**6**, the Permittee shall maintain records of the **continuous temperature records.** ~~computer collected data~~.

(~~d~~**c**) To document compliance with Condition D.1.~~9~~**7**, the Permittee shall maintain a log of ~~the replacement dates of the catalyst.~~ **primary catalyst inspections, the inspection results, and replacement dates of the catalyst**.

(d) To document compliance with Condition D.1.8, the permittee shall maintain records of visual emissions notations.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 12:

Essex also pointed out in their letter of July 18, 2001, that the description in Section D.2 of the cleaning area did not reference the identification number for one at the tanks.

Response to Comment 12:

The description was changed to refer to tanks 1 through 3 which is consistent with the description in Section A.2

(c) One (1) cleaning area (CLRM1), consisting of tanks **1**~~2~~ through 3, exhausted through stacks SCT1, SCT2, and SCT3, capacity: 600 gallons each.

Additional Revisions made by IDEM:

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table of Contents has been modified to reflect these changes.

Section B

Updates 1 through 5 have been made to incorporate the Article 2 rule revisions that were adopted on October 3, 2001, and become effective on January 19th, 2002. For more information about this rulemaking, refer to the October 2001 Air Pollution Control Board Packet which can be found on the internet at http://www.state.in.us/idem/air/rules/apcb/packets/index.html. The rule revisions will be published in the February 1, 2002 Indiana Register which can be found on the internet at http://www.IN.gov/legislative/register/index-25.html.

1. Add the new rule cite to B.2 Permit Term.

B.2 Permit Term [326 IAC 2-7-5(2)] **[326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

2. B.12 Emergency Provisions (a)(b) and (g) have been revised to reflect rule changes to 326 IAC 2-7-16. This section of the rule is now consistent with 40 CFR 70.6(g) and provides an affirmative defense to an action brought for non-compliance with technology based emission limitations only.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation~~, except as provided in 326 IAC 2-7-16.~~

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a ~~health-based or~~ technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(g) ~~Operations may continue during an emergency only if the following conditions are met~~:

~~(1)~~ If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

~~(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:~~

~~(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and~~

~~(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.~~

~~Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.~~

3. B.14 Multiple Exceedances has been deleted, because 326 IAC 2-7-5(1)(E) has been repealed, because it conflicted with 40 CFR 70.6(a)(6).

~~B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]~~

~~Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.~~

4. B.14 Prior Permits Superseded was added to the permit to help clarify the intent of the new rule 326 IAC 2-1.1-9.5.

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

5. Remove (b) from B.13 Permit Shield. Since B.14 Prior Permits Superceded has been added to the permit, it is not necessary for this statement to be in this condition.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

~~(b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.~~

6. The IDEM, OAQ, has revised Condition B.15 Deviations from Permit Requirements and Conditions to address concerns regarding the independent enforceability of permit conditions [see 40 CFR 70.6(a)(6)(i)]. B.15 was revised to remove language that could be considered to grant exemptions from permit requirements and to clarify reporting obligations.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. ~~Deviations that are required to be reported by an applicable requirement~~ **A deviation required to be reported pursuant to an applicable requirement that exists**

independent of this permit, shall be reported according to the schedule stated in the applicable requirement and ~~do~~ **does** not need to be included in this report.

The ~~notification by the Permittee~~ **Quarterly Deviation and Compliance Monitoring Report** does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit ~~or a rule. It does not include:~~

~~(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or~~

~~(2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.~~

~~A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.~~

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

7. B.8 This section has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the permittee's application to renew the permit.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit ~~except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and~~ is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(**c**) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(**d**) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

Section C

8. Part 70 requires any application form, report, or compliance certification to be certified by the Responsible Official. IDEM, OAQ has revised C.8 Asbestos Abatement Projects to clarify that the asbestos notification does not require a certification by the responsible official, but it does need to be certified by the owner or operator. IDEM, OAQ has revised C.18 Actions Related to

Noncompliance Demonstrated by a Stack Test; a certification by the responsible official is required for the notification sent in response to non-compliance with a stack test.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The

requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do ~~not~~ require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

9. The IDEM, OAQ has restructured C.17 to clarify the contents and implementation of the compliance response plan. The language regarding the OAQ's discretion to excuse failure to perform monitoring under certain conditions has been deleted. The OAQ retains this discretion to excuse minor incidents of missing data; however, it is not necessary to state criteria regarding the exercise of that discretion in the permit. In C.17 (c)(2) "administrative amendment" has been revised to "minor permit modification", because 326 IAC 2-7-11(a)(7) has been repealed. The title Compliance Monitoring Plan - Failure to Take Response Steps has been changed to Compliance Response Plan - Preparation, Implementation, Records, and Reports throughout the permit.

C.17 Compliance ~~Monitoring~~ **Response** Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports** [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to **prepare** ~~implement: a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:~~

~~(1) This condition;~~

~~(2) The Compliance Determination Requirements in Section D of this permit;~~

~~(3) The Compliance Monitoring Requirements in Section D of this permit;~~

~~(4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and~~

~~(5) A~~ **a** Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. **A** CRP~~'s~~ shall be submitted to IDEM, OAQ upon request ~~and shall be subject to review and approval by IDEM, OAQ,~~. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee**, supplemented from time to time by the Permittee,** ~~and~~ maintained on site, and ~~is~~ comprised of:

~~(A)~~**(1)** Reasonable response steps that may be implemented in the event that ~~compliance related information indicates that~~ a response step is needed pursuant to the requirements of Section D of this permit; and **an expected timeframe for taking reasonable response steps.**

~~(B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.~~

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition **as follows:** ~~Failure to take reasonable response steps may constitute a violation of the permit.~~

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) ~~Upon investigation of a compliance monitoring excursion, the~~ **The** Permittee is ~~excused from taking~~ **not required to take any** further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment **and** ~~This shall be an excuse from taking further response steps providing that~~ prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for ~~an administrative amendment~~ **a minor permit modification** to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

~~(d)~~**(e)** ~~Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.~~ **The Permittee shall record all instances when response steps are taken.** In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

~~(e)~~**(f)** **Except as otherwise provided by a rule or provided specifically in Section D,** all monitoring **as** required in Section D shall be performed ~~at all times~~ **when** the ~~equipment~~ **emission unit** is operating, **except for time necessary to perform quality assurance and maintenance activities.** ~~If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.~~

~~(f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.~~

Section D

10. The D.1 conditions were revised to add clarity and provide more details of the requirements of 326 IAC 8-2-8.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-2-8]

(a) Pursuant to 326 IAC 8-2-8 (Magnet Wire Coating Operations) and CP 081-2345-00021 issued on March 31, 1992, the **owner or operator shall not allow the discharge into the atmosphere of VOC in excess of** ~~volatile organic content less water of electrically insulating varnishes or enamel applied to aluminum or copper wire for use in electrical machinery shall be limited to~~ 1.7 pounds VOC per gallon of coating**, excluding water,** ~~less water~~ delivered to the **coating** applicator **from magnet wire coating operations.** ~~determined after use of the catalytic oxidizer, including clean-up solvents, delivered to the applicator.~~

~~(b) This limit includes the evaporation of thinners being added to coatings to adjust viscosity, therefore, it is necessary to keep coating and solvent containers covered at all times to prevent solvent evaporation.~~

(b) Pursuant to 326 IAC 8-1-2 (b), the enameling process lines VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon coating solids, allowed in (a).

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating
D= Density of VOC in coating in pounds per gallon of VOC
E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied

Actual solvent density shall be used to determine compliance of surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).

(c) The pounds of VOC per gallon of coating solids shall be limited to less than 2.21, when L is equal to 1.7 pounds of VOC per gallon of coating and D is equal to 7.36 pounds of VOC per gallon of coating.

(d) Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the catalytic oxidizer shall be no less that the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

V = The actual VOC content of the coating or, if multiple coatings are used, the daily weighted average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.
E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.
O = Equivalent overall efficiency of the capture system and control device as a percentage.

The overall efficiency of the catalytic oxidizer shall be greater than 94.9%.

~~D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]~~

~~The enamel processing lines shall emit less than 67.3 tons of VOC per 12 consecutive month period from lubricant usage. Also, the ovens shall emit less than 146.4 tons per year of VOC per 12 consecutive month period. These limits, in conjunction with the limit in Condition D.2.1, are required to limit the potential to emit of VOC for the entire source to less than 250 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.~~

D.1.2~~3~~ Preventative Maintenance Plan [326 IAC 2-7-5(3)]

A Preventative Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the catalytic oxidizers to achieve compliance with condition D.1.1 at all times the magnetic wire coaters are in operation.

~~D.1.4 Volatile Organic Compound (VOC)~~

~~(a) Each internal integral catalytic oxidizer shall operate with an overall efficiency of not less than 94.9% at all times when the wire enameling ovens are in operation.~~

~~(b) The 94.9% overall efficiency for each oven is necessary to ensure compliance with 326 IAC 8-2-8 and 326 IAC 2-2.~~

~~(c) The internal integral catalytic oxidizers shall be operated at or above 500 degrees Celsius (EC) or a temperature determined during compliance tests to maintain the 94.9% minimum overall efficiency.~~

~~D.1.5 Volatile Organic Compound (VOC)~~

~~Compliance with the VOC usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.~~

D.1.~~7~~**4** Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

(a) Within ~~twenty-four (24)~~ **six (6)** months after issuance of this permit, the Permittee shall **conduct performance test to verify VOC control efficiency as per D.1.1 for catalytic oxidizers using** ~~perform VOC testing utilizing~~ methods as approved by the Commissioner. **Testing shall also be conducted every twenty-four (24) months after this first test.**

(b) ~~One representative oven from the twelve (12) magnet wire ovens shall be tested.~~ The oven tested shall ~~not~~ be **the oven with the oldest primary catalyst life that has not been tested since the issuance of this permit.** ~~an oven that has previously been tested. The catalyst of the oven chosen to be tested shall be on its second year of life. The test shall be done within the last 2 months of this second year of life of the catalyst.~~ **Oldest catalyst refers to the longest serving catalyst since last activation.**

(c) Within eighteen (18) months of issuance of this permit and at least every twenty-four (24) months thereafter, the permittee shall remove the primary catalyst from each oven and have the catalyst vendor conduct a catalyst activity analysis. Catalysts with percent activity less than the catalyst activity of the oldest catalyst must be replaced or a stack test must be conducted to show that 94.9% overall efficiency is being achieved.

(d)~~(c)~~ ~~Additionally, if~~ **Before using a coating with** a higher VOC content **than what was used during the stack test required in (a) above,** ~~coating is used or if the temperature falls below the 689EF required minimum temperature it will be considered a violation unless~~ the Permittee ~~performs~~ **shall conduct a performance test to verify** VOC ~~testing utilizing~~ **control efficiency as per D.1.1 for catalytic oxidizers using** methods as approved by the Commissioner. ~~to ensure compliance with the 96.9% overall efficiency at the lower temperature.~~

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Catalytic Oxidizer

(a) From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature of 500 ^{0}C.

(b) The Permittee shall determine temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.1.1, as approved by IDEM.

(c) From the date of the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature and as observed during the compliant stack test.

D.1.6 Parametric Monitoring

A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be at or above the hourly average temperature used to demonstrate compliance during the most recent compliance stack test.

~~D.1.8 Monitoring~~

~~(a) Compliance with the 500EC minimum temperature will be monitored by computer collected data generated continuously and recorded on strip charts or by computer software. If strip charts are not in operation, manually record temperature once in a 15-minute period.~~

~~(b) If during specific hours when in production the temperature is less than the established minimum temperature, this will be considered noncompliance.~~

D.1.~~7~~**9** Catalyst Replacement **Inspections**

~~The catalyst shall be replaced a minimum of every twenty-four (24) months provided that the catalyst oxidizer is achieving the required overall efficiency. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~ **The primary catalyst on each oven shall be inspected once per year. If there are indications of excess fouling or excess catalyst degradation, the permittee must test catalyst activity or replace the catalyst.**

D.1.8 Visible Emissions Notations

(a) Twice in a week, visible emission notations of the ovens stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.~~10~~**9** Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records of **manufacturer's data, including but not limited to** material safety data sheets (MSDS) to verify the VOC content of each coating material and solvent used.

~~(b) To document compliance with Conditions D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.2.~~

~~(1) The amount and VOC content of each lubricant used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

~~(2) A log of the dates of use;~~

~~(3) The total VOC usage for each month; and~~

~~(4) The weight of VOCs emitted for each compliance period.~~

(~~c~~**b**) To document compliance with Condition D.1.~~8~~**6**, the Permittee shall maintain records of the **continuous temperature records.** ~~computer collected data~~.

(~~d~~**c**) To document compliance with Condition D.1.~~9~~**7**, the Permittee shall maintain a log of ~~the replacement dates of the catalyst.~~ **primary catalyst inspections, the inspection results, and replacement dates of the catalyst**.

(d) To document compliance with Condition D.1.8, the permittee shall maintain records of visual emissions notations.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

~~D.1.11 Reporting Requirements~~

~~A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

11. The D.3.1 condition was modified to more accurately represent the rule requirements.

D.3.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter (PM) from brazing, cutting, soldering and welding operations shall be limited by the following:

Interpolation ~~and extrapolation~~ of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name: Essex Group, Inc., Magnet Wire Manufacturing
Source Location: 3200 Essex Drive, Franklin, Indiana 46131
County: Johnson
SIC Code: 3357
Operation Permit No.: T081-7977-00021
Permit Reviewer: ERG/RM

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Essex Group, Inc., relating to the operation of wire coating process.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Eight (8) HM wire enameling process lines constructed in 1993, emission unit numbers 203, 204, 205, 206, 253, 254, 255, and 256 with a maximum rating of 475 pounds of magnet wire per hour each. Each process line consists of an annealer, enamel applicators, curing oven, wire cooler and topical lube applicator. Emissions shall be controlled by integral internal catalytic oxidizers, internal to each curing oven, then exhausted to stacks SO203, SO204, SO205, SO206, SO253, SO254, SO255, and SO256, respectively.

(b) Four (4) MI wire enameling process lines constructed in 1993, emission units 201, 202, 251, and 252 with a maximum rating of 466 pounds of magnet wire per hour each. Each process line consists of an annealer, enamel applicators, curing oven, wire cooler and topical lube applicator. Emissions shall be controlled by integral internal catalytic oxidizers, internal to each curing oven, then exhausted to stacks SO201, SO202, SO251, and SO252, respectively.

(c) One (1) cleaning area (CLRM1), consisting of tanks 1 through 3, exhausted through stacks SCT1, SCT2, and SCT3, capacity: 600 gallons each.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

(b) Combustion source flame safely purging on startup.

(c) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

(2) Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.

(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(f) Closed loop heating and cooling systems.

(g) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(h) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.

(i) Quenching operations used with heat treatment processes.

(j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(k) Heat exchanger cleaning and repair.

(l) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(m) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(n) On-site fire and emergency response training approved by the department.

(n) Emergency generator as follows: Diesel generators not exceeding 1,600 horsepower.

(o) Stationary fire pumps.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP 081-2345-00021, issued on March 31, 1992.

All conditions from this previous approval were incorporated into this Title V permit except the following:

In this Part 70 permit, the limits on lubricant usage (48 gallons per day) and cleaning solvent usage (4100 gallons per year) in CP 081-2345-00021 are shown as VOC emission limits in order to maintain PSD minor source status. This format for these limits is consistent with the current IDEM PSD minor limit format. Also the VOC limit given for the cleaning solvent usage was increased to a limit corresponding to 8000 gallons of cleaning solvents per year (up from

4100 gallons per year). Increasing this limit still resulted in a limited potential to emit of VOC of less than 250 tons per year.

Air Pollution Control Justification as an Integral Part of the Process

A pollution control device can be considered as part of the emission unit's physical or operational design if one of more of the three criteria are met. These criteria are:

(a) The process cannot operation without the control device;

(b) The control device serves a primary purpose other than pollution control; or

(c) The control device has an overwhelming positive net economic effect.

The company has submitted the following justification such that the VOC internal catalytic oxidizers be considered as part of the wire coating process:

The VOCs will be oxidized using only the process heat supplied by the curing ovens. Therefore, both the first and second criteria above are satisfied. The process could not operate without the oxidizers and the oxidizers serve a primary purpose other than pollution control.

IDEM, OAQ has evaluated the justifications and agreed that the catalytic oxidation system will be considered as an integral part of the wire coating process. Therefore, the permitting level will be determined using the potential to emit after the internal catalytic VOC oxidation system. Operating conditions in the proposed permit will specify that this catalytic VOC oxidation system shall operate at all times when the wire coating process is in operation.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 18, 1996 Additional information was received on November 4, 1999.

A notice of completeness letter was mailed to the source on January 17, 1997.

Emission Calculations

See Appendix A of this document for detailed emissions calculations pages 1 through 5.

Potential to Emit

Pursuant to 326 IAC 1-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable unit it has been required in a federally enforceable permit.

Pollutant	Potential Emissions (tons/year)
PM	less than 100
PM-10	less than 100
SO_2	less than 100
VOC	greater than 250
CO	less than 100
NO_x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential Emissions (tons/year)
Cresols/cresylic Acid	37.5
Phenol	52.4
Xylenes	3.4
Cumene	0.53
TOTAL	93.2

(a) The potential emissions (as defined in 326 IAC 1-2-55) of VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential emissions (as defined in 326 IAC 1-2-55) of any single HAP is equal to or greater than ten (10) tons per year and the potential emissions (as defined in 326 IAC 1-2-55) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1999 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	--
PM-10	--
SO_2	--
VOC	39
CO	--
NO_x	--

Potential to Emit after Issuance

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
All ovens	----	----	----	146.4	----	----	55.5
Cleaning Tanks	----	----	----	34.3	----	----	37.7
Lubricant Oil	----	----	----	67.3	----	----	----

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Total Emissions	----	----	----	248*	----	----	93.2

*Two (2) tons per year represent emissions from insignificant sources, therefore, the entire source is limited to less than 250 tons per year.

County Attainment Status

The source is located in Johnson County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Johnson County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Johnson County has been classified as attainment or unclassifiable for all pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 11 and 40 CFR 63) applicable to this source. Subpart TT of 40 CFR Subpart 63 does not apply to the cleaning operation or insignificant degreaser because neither use solvents containing a halogenated HAP solvent.

State Rule Applicability

326 IAC 2-2 Prevention of Significant Deterioration (PSD)

This source is a minor source under PSD because the emissions of VOC are limited to less than 250 tons per year. This is accomplished by limiting the VOC emissions from the usage of lubricant oil to less than 67.3 tons per year of VOC and limiting the VOC emissions from the cleaning solvent to less than 34.3 tons per year of VOC. Also, the VOC emissions from the magnet wire ovens are limited to less than 146.4 tons per year of VOC.

326 IAC 2-6 (Emission Reporting)

The facilities covered by this modification are subject to 326 IAC 2-6 (Emission Reporting), because of their potential to emit more than 100 tons per year of VOC. Pursuant to this rule, the owner operator of these facilities must annually submit an emission statement of the facilities. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 5-1-2 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute average period as determined by 326 IAC 5-1-4,

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the insignificant brazing, cutting, soldering, and welding, operations shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

326 IAC 8-1-6 (New Facilities; general reduction requirements)

All twelve (12) wire enameling ovens are subject to 326 IAC 8-2-8. Therefore, 326 IAC 8-1-6 is not applicable. In addition, the cleaning operation constructed in 1993 is subject to 326 IAC 8-3-2 and 326 IAC 8-3-5 and therefore, 326 IAC 8-1-6 is not applicable.

326 IAC 8-2-8 Magnet Wire Coating Operations

Pursuant to 326 IAC 8-2-8 (Magnet Wire Coating Operations), the volatile organic compound (VOC) content of electrically insulating varnishes or enamel applied to aluminum or copper wire for use in electrical machinery shall be limited to 1.7 pounds VOC per gallon of coating less water delivered to the applicator.

This limit includes the evaporation of thinners being added to coatings to adjust viscosity, therefore, it is necessary to keep coating and solvent containers covered at all times to prevent solvent evaporation.

The internal catalytic oxidizers associated with the twelve (12) wire enameling ovens shall operate with an overall efficiency of not less than 96.1% at all times when the wire enameling oven is in operation.

The 96.1% overall efficiency is necessary to ensure compliance with 326 IAC 8-2-8.

326 IAC 8-3-2 (Cold Cleaner Operations)

The cleaning operations and insignificant degreaser are subject to the requirements of 326 IAC 8-3-2. This rule requires that the cleaner be equipped with a cover and a facility for draining cleaned parts as well as that waste solvent be stored only in covered containers.

326 IAC 8-3-5 (Cold Cleaner Operation and Control)

The cleaning operation and insignificant degreaser is subject to the requirements of 326 IAC 8-3-5(a). This rule requires that the owner and operator of a cold cleaner degreaser facility shall ensure that the degreaser is equipped with a cover that must be designed so that it can be easily operated with one (1) hand if certain conditions exist. The degreaser must be equipped with a facility for draining cleaned articles.

Testing Requirements

VOC emissions from the magnet wire ovens are calculated according to the methodology set out in the attached Appendix A: Emission Calculations. In order to comply with 326 IAC 8-2-8, the catalytic oxidizers for ovens 201, 202, 203, 204, 205, 206, 251, 252, 253, 254, 255, and 256 must operate at an efficiency of no less than 96.1%. Both the claimed control efficiency and the control efficiency required to comply with 326 IAC 8-2-8 are greater than 85%. Therefore, performance testing is required to verify that the oxidizers are achieving the required control efficiency. One representative oven from the group of twelve ovens will be tested once per permit term. The ovens tested must not be an oven that has previously been tested.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) Wire enamel ovens 201, 202, 203, 204, 205, 206, 251, 252, 253, 254, 255 and 256 have applicable compliance monitoring conditions as specified below:

Compliance with the minimum temperature will be monitored by computer collected data generated continuously. Eight-hour average temperatures will be made available to IDEM upon request and one-hour temperatures records will be made available within five business days from request. The temperatures will be reported based on an eight-hour average. The oxidizers shall operate with a five (5) degree buffer such that if the eight-hour average temperature falls within five (5) degrees of the minimum required temperature, corrective action shall be performed and one-hour temperatures shall be investigated to determine if any temperature fell below the actual minimum temperature.

If during specific hours the temperature is less than the established minimum temperature, this will be considered noncompliance.

The catalysts shall be replaced a minimum of every twenty-four (24) months provided that the catalyst oxidizer is achieving the required overall efficiency.

These monitoring conditions are necessary because the oxidizers must operate properly to ensure compliance with the permit conditions of CP 081-2345-00021 requirements of 326 IAC 8-2-8 (Magnet Wire Coating Operations) and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Quality (OAQ) Part 70 Application Form GSD-08.

(a) This source will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations for detailed air toxic calculations.

Conclusion

The operation of this enamel production and wire coating source shall be subject to the conditions of the attached proposed Part 70 Permit No. T 081-7977-00021.

Appendix A: Emissions Calculations
VOC And Particulate
From Surface Coating Operations
EU-201, 202, 251, 252

Company Name: Essex Group, Inc
Address City IN Zip: Franklin, IN
Permit Number: T-081-7977-00021
Plt ID: 081-00021
Reviewer ERG/RM
Date: 10-10-00

Potential Emissions (prior to internal integral catalytic oxidizer):

Material	Process	Density (Lb/GAL)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)*	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
THEIC Polyester EX-27911	EU-201	9.96	50.87%	0.10%	50.77%	0.12%	40.44%	0.004811	466	5.06	5.06	11.35	272.40	49.71	0.00	12.50	100.00%
THEIC Ester-imid SX-29002	EU-201	9.7	52.34%	0.11%	52.24%	0.12%	40.70%	0.00494	466	5.07	5.07	11.68	280.28	51.15	0.00	12.45	100.00%
Amide-imid SX-83002	EU-201	8.9	72.24%	0.15%	72.10%	0.15%	21.41%	0.005384	466	6.43	6.42	16.12	386.96	70.62	0.00	29.97	100.00%
Amide-imid SX-83007	EU-201	8.9	72.32%	0.15%	72.18%	0.16%	21.56%	0.005384	466	6.43	6.42	16.14	387.39	70.70	0.00	29.79	100.00%
Amide-imid SX-83008	EU-201	8.9	72.22%	0.14%	72.08%	0.15%	21.67%	0.005384	466	6.42	6.41	16.12	386.86	70.60	0.00	29.60	100.00%

Total Potential to Emit prior to internal integral catalytic oxidizer:				
per unit:	71.41	1713.89	312.79	0.00
X 4 Units:**	285.65	6855.57	1251.14	0.00

Potential Emissions (after internal integral catalytic oxidizer):

Material (As Applied)	Applicant listed VOC Control Efficiency	Potential VOC lbs per hour per unit	Potential VOC lbs per day per unit	Potential VOC tons per year per unit	Potential VOC tons per year x 4 units**
THEIC Polyester EX-27911	96.10%	0.44	10.62	1.94	7.76
THEIC Ester-imid SX-29002	96.10%	0.46	10.93	1.99	7.98
Amide-imid SX-83002	96.10%	0.63	15.09	2.75	11.02
Amide-imid SX-83007	96.10%	0.63	15.11	2.76	11.03
Amide-imid SX-83008	96.10%	0.63	15.09	2.75	11.01

Total Potential to Emit after internal integral catalytic oxidizer:				
	2.79	66.84	12.20	48.79

*Process may also be run at 431 units/hr. The calculation for this situation is not shown because emissions are the same for both production speeds.
**There are four (4) identical units (EU-201, 202, 251, and 252) which perform identical operations. The unit EU-201 represents one unit.

Methodology:
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1 - Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC pounds per hour = Pounds VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC pounds per day = Pounds VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 24 hr/day
Potential VOC tons per year = Pounds VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 8760 hr/yr * (1 ton/2000 lb)
Particulate Potential Tons per Year = (units/hr) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer Efficiency) * (8760 hr/yr) * (1 ton/2000 lb)
Pounds VOC per Gallon of solids = (Density (lb/gal) * Weight % organics) / (Volume % Solids) * Transfer Efficiency
Total = sum of all materials used (worst case)
Controlled emission rate = worst case uncontrolled emission rate * (1 - control efficiency)

Appendix A: Emissions Calculations
VOC And Particulate
From Surface Coating Operations
EU-203, 204, 205, 206, 253, 254, 255, 256
Company Name: Essex Group, Inc
Address City IN Zip: Franklin, IN
Permit Number: T-081-7977-00021
Plt ID: 081-00021
Reviewer ERG/RM
Date: 10-10-00

Potential Emissions (prior to internal integral catalytic oxidizer):

Material	Process	Density (Lb/GAL)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)*	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
THEIC Polyester EX-27911	EU-203	9.96	50.87%	0.10%	50.77%	0.12%	40.44%	0.00472	475	5.06	5.06	11.35	272.41	49.72	0.00	12.50	100.00%
THEIC Ester-imid SX-29002	EU-203	9.7	52.34%	0.11%	52.24%	0.12%	40.70%	0.004846	475	5.07	5.07	11.68	280.25	51.15	0.00	12.45	100.00%
Amide-imid SX-83002	EU-203	8.9	72.24%	0.15%	72.10%	0.15%	21.41%	0.005282	475	6.43	6.42	16.12	386.96	70.62	0.00	29.97	100.00%
Amide-imid SX-83007	EU-203	8.9	72.32%	0.15%	72.18%	0.16%	21.56%	0.005282	475	6.43	6.42	16.14	387.39	70.70	0.00	29.79	100.00%
Amide-imid SX-83008	EU-203	8.9	72.22%	0.14%	72.08%	0.15%	21.67%	0.005282	475	6.42	6.41	16.12	386.86	70.60	0.00	29.60	100.00%

Total Potential to Emit prior to internal integral catalytic oxidizer:				
per unit:	71.41	1713.88	312.78	0.00
X 8 Units:**	571.29	13711.05	2502.27	0.00

Potential Emissions (after internal integral catalytic oxidizer):

Material (As Applied)	Applicant listed VOC Control Efficiency	Potential VOC lbs per hour per unit	Potential VOC lbs per day per unit	Potential VOC tons per year per unit	Potential VOC tons per year x 8 units**
THEIC Polyester EX-27911	96.10%	0.44	10.62	1.94	15.51
THEIC Ester-imid SX-29002	96.10%	0.46	10.93	1.99	15.96
Amide-imid SX-83002	96.10%	0.63	15.09	2.75	22.03
Amide-imid SX-83007	96.10%	0.63	15.11	2.76	22.06
Amide-imid SX-83008	96.10%	0.63	15.09	2.75	22.03

Total Potential to Emit after internal integral catalytic oxidizer:				
2.79	66.84	12.20	97.59

*Process may also be run at 225 units/hr. The calculation for this situation is not shown because emissions are the same for both production speeds.
**There are eight (8) identical units (EU-203, 204, 205, 206, 253, 254, 255, and 256) which perform identical operations. The unit EU-203 represents one unit.

Methodology:
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1 - Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC pounds per hour = Pounds VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC pounds per day = Pounds VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 24 hr/day
Potential VOC tons per year = Pounds VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 8760 hr/yr * (1 ton/2000 lb)
Particulate Potential Tons per Year = (units/hr) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer Efficiency) * (8760 hr/yr) * (1 ton/2000 lb)
Pounds VOC per Gallon of solids = (Density (lb/gal) * Weight % organics) / (Volume % Solids) * Transfer Efficiency
Total = sum of all materials used (worst case)
Controlled emission rate = worst case uncontrolled emission rate * (1 - control efficiency)

Appendix A: Emissions Calculations
HAP Emissions
From Surface Coating Operations
EU-201, 202, 251, 252

Company Name: Essex Group, Inc
Address City IN Zip: Franklin, IN
Permit Number: T-081-7977-00021
Plt ID: 081-00021
Reviewer ERG/RM
Date: 10-10-00

Potential Emissions (prior to internal integral catalytic oxidizer):

Material	Process	Density (Lb/GAL)	Gal of Mat (gal/unit)	Maximum (units/hr)*	Weight % Xylene	Weight % Cumene	Weight % Phenol	Weight % Cresylic Acid	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Phenol Emissions (ton/yr)	Cresylic Acid Emissions (ton/yr)	Total HAP Emissions (ton/yr)
THEIC Polyester EX-27911	EU-201	9.96	0.004811	466	0.00%	0.00%	37.00%	17.00%	0.00	0.00	36.19	16.63	52.81
THEIC Ester-imid SX-29002	EU-201	9.7	0.00494	466	0.00%	0.00%	40.00%	20.00%	0.00	0.00	39.12	19.56	58.68
Amide-imid SX-83002	EU-201	8.9	0.005384	466	2.27%	0.17%	0.00%	0.00%	2.22	0.17	0.00	0.00	2.39
Amide-imid SX-83007	EU-201	8.9	0.005384	466	2.27%	0.17%	0.00%	0.00%	2.22	0.17	0.00	0.00	2.39
Amide-imid SX-83008	EU-201	8.9	0.005384	466	2.27%	0.17%	0.00%	0.00%	2.22	0.17	0.00	0.00	2.39

Total Potential to Emit prior to internal integral catalytic oxidizer:					
	per unit:	6.66	0.50	75.31	36.19	118.66
	X 4 Units:**	26.65	2.01	301.24	144.75	474.65

Potential Emissions (after internal integral catalytic oxidizer):

Material (As Applied)	Destruction Efficiency (%)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Phenol Emissions (ton/yr)	Cresylic Acid Emissions (ton/yr)	Total HAP Emissions (ton/yr)
THEIC Polyester EX-27911	96.10%	0.00	0.00	1.41	0.65	2.06
THEIC Ester-imid SX-29002	96.10%	0.00	0.00	1.53	0.76	2.29
Amide-imid SX-83002	96.10%	0.09	0.01	0.00	0.00	0.09
Amide-imid SX-83007	96.10%	0.09	0.01	0.00	0.00	0.09
Amide-imid SX-83008	96.10%	0.09	0.01	0.00	0.00	0.09

Total Potential to Emit after internal integral catalytic oxidizer:					
	per unit:	0.26	0.02	2.94	1.41	4.63
	X 4 units:**	1.04	0.08	11.75	5.65	18.51

*Process may also be run at 431 units/hr. The calculation for this situation is not shown because emissions are the same for both production speeds.
**There are four (4) identical units (EU-201, 202, 251, and 252) which perform identical operations. The unit EU-201 represents one unit.

Methodology:
HAPs emission rate (ton/yr) = Desity (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hr/yr * 1ton/2000 lb

Appendix A: Emissions Calculations
HAP Emissions
From Surface Coating Operations
EU-203, 204, 205, 206, 253, 254, 255, 256
Company Name: Essex Group, Inc
Address City IN Zip: Franklin, IN
Permit Number: T-081-7977-00021
Plt ID: 081-00021
Reviewer ERG/RM
Date: 10-10-00

Potential Emissions (prior to internal integral catalytic oxidizer):

Material	Process	Density (Lb/GAL)	Gal of Mat (gal/unit)	Maximum (units/hr)*	Weight % Xylene	Weight % Cumene	Weight % Phenol	Weight % Cresylic Acid	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Phenol Emissions (ton/yr)	Cresylic Acid Emissions (ton/yr)	Total HAP Emissions (ton/yr)
THEIC Polyester EX-27911	EU-203	9.96	0.00472	475	0.00%	0.00%	37.00%	17.00%	0.00	0.00	36.19	16.63	52.82
THEIC Ester-imid SX-29002	EU-203	9.7	0.004846	475	0.00%	0.00%	40.00%	20.00%	0.00	0.00	39.12	19.56	58.68
Amide-imid SX-83002	EU-203	8.9	0.005282	475	2.27%	0.17%	0.00%	0.00%	2.22	0.17	0.00	0.00	2.39
Amide-imid SX-83007	EU-203	8.9	0.005282	475	2.27%	0.17%	0.00%	0.00%	2.22	0.17	0.00	0.00	2.39
Amide-imid SX-83008	EU-203	8.9	0.005282	475	2.27%	0.17%	0.00%	0.00%	2.22	0.17	0.00	0.00	2.39

Total Potential to Emit prior to internal integral catalytic oxidizer:					
per unit:	6.66	0.50	75.31	36.19	118.66
X 8 Units:**	53.31	3.99	602.46	289.49	949.25

Potential Emissions (after internal integral catalytic oxidizer):

Material (As Applied)	Destruction Efficiency (%)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Phenol Emissions (ton/yr)	Cresylic Acid Emissions (ton/yr)	Total HAP Emissions (ton/yr)
THEIC Polyester EX-27911	96.10%	0.00	0.00	1.41	0.65	2.06
THEIC Ester-imid SX-29002	96.10%	0.00	0.00	1.53	0.76	2.29
Amide-imid SX-83002	96.10%	0.09	0.01	0.00	0.00	0.09
Amide-imid SX-83007	96.10%	0.09	0.01	0.00	0.00	0.09
Amide-imid SX-83008	96.10%	0.09	0.01	0.00	0.00	0.09

Total Potential to Emit after internal integral catalytic oxidizer:					
per unit:	0.26	0.02	2.94	1.41	4.63
X 8 units:**	2.08	0.16	23.50	11.29	37.02

*Process may also be run at 225 units/hr. The calculation for this situation is not shown because emisions are the same for both production speeds.
**There are eight (8) identical units (EU-203, 204, 205, 206, 253, 254, 255, and 256) which perform identical operations. The unit EU-203 represents one unit.

Methodology:
HAPs emission rate (ton/yr) = Desity (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hr/yr * 1ton/2000 lb

Appendix A: Emissions Calculations

VOC And HAPs Emissions

From Cleaning Room

Company Name: Essex Group, Inc

Address City IN Zip: Franklin, IN

Permit Number: T-081-7977-00021

Plt ID: 081-00021

Reviewer ERG/RM

Date: 10/10/00

VOC Emissions

Solvent	Net Consumption (gal)	Net Consumption (gal/day)	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Pounds VOC per gallon of solvent less water	Pounds VOC per gallon of solvent	Potential VOC pounds per day	Potential VOC tons per year
Solvent Blend SX-90702	8000	21.92	8.57	100.00%	0.20%	99.80%	0.21%	0.00%	8.57	8.55	187.85	34.28
Solvent Blend SX-90400	8000	21.92	7.27	100.00%	0.20%	99.80%	0.18%	0.00%	7.27	7.26	159.30	29.07
Solvent Blend SX-97500	8000	21.92	8.38	100.00%	0.20%	99.80%	0.20%	0.00%	8.38	8.36	183.66	33.52
										Worst Case	187.85	34.28

HAP Emissions

Solvent	Net Consumption (gal)	Net Consumption (gal/day)	Density (lb/gal)	Weight % Xylene	Wieght % Cumene	Weight % Phenol	Weight % Cresylic Acid	Xylene Emissions (ton/yr)	Cumene Emssions (ton/yr)	Phenol Emissions (ton/yr)	Cresylic Acid Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Solvent Blend SX-90702	8000	21.92	8.57	0.00%	0.00%	50.00%	60.00%	0.00	0.00	17.14	20.57	37.71
Solvent Blend SX-90400	8000	21.92	7.27	1.00%	1.00%	0.00%	0.00%	0.29	0.29	0.00	0.00	0.58
Solvent Blend SX-97500	8000	21.92	8.38	0.20%	0.20%	0.00%	0.00%	0.07	0.07	0.00	0.00	0.13
							Worst Case	0.29	0.29	17.14	20.57	37.71

Methodology:

Pounds of VOC per Gallon Solvent less Water = (Density (lb/gal) * Weight % Organics) / (1 - Volume % water)

Pounds of VOC per Gallon Solvent = (Density (lb/gal) * Weight % Organics)

Potential VOC pounds per day = Pounds VOC per Gallon Solvent (lb/gal) * Net Consumption (gal/day)

Potential VOC tons per year = Pounds VOC per Gallon Solvent (lb/gal) * Net Consumption (gal/day) * (1 day/24 hr) * (8760 hr/ 1 yr) * (1 ton/2000 lb)

HAPs emission rate (ton/yr) = Desity (lb/gal) * Net Consumption (gal/day) * Weight % HAP * 1 day/24 hr * 8760 hr/yr * 1ton/2000 lb

Appendix A: Emissions Calculations

VOC Emissions

From Lubricant oil

Company Name: Essex Group, Inc

Address City IN Zip: Franklin, IN

Permit Number: T-081-7977-00021

Plt ID: 081-00021

Reviewer ERG/RM

Date: 12/21/00

VOC Emissions

Solvent	Net Consumption (gal)	Net Consumption (gal/day)	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Pounds VOC per gallon of solvent less water	Pounds VOC per gallon of solvent	Potential VOC pounds per day	Potential VOC tons per year
Lubricant Oil	17520	48.00	7.84	98.00%	0.00%	98.00%	0.00%	2.00%	7.68	7.68	368.79	67.30

Methodology:

Pounds of VOC per Gallon Solvent less Water = (Density (lb/gal) * Weight % Organics) / (1 - Volume % water)

Pounds of VOC per Gallon Solvent = (Density (lb/gal) * Weight % Organics)

Potential VOC pounds per day = Pounds VOC per Gallon Solvent (lb/gal) * Net Consumption (gal/day)

Potential VOC tons per year = Pounds VOC per Gallon Solvent (lb/gal) * Net Consumption (gal/day) * (1 day/24 hr) * (8760 hr/ 1 yr) * (1 ton/2000 lb)

HAPs emission rate (ton/yr) = Desity (lb/gal) * Net Consumption (gal/day) * Weight % HAP * 1 day/24 hr * 8760 hr/yr * 1ton/2000 lb